

## **REMARKS**

### **The Rejection under 35 U.S.C. §112, first paragraph**

The rejection of claims 53-65 under 35 U.S.C. §112, first paragraph, is respectfully traversed.

The applicants now recognize that the compounds of Examples 31 and 32 are not the same as the 16 $\beta$ -ethinylestra-1,3,5(10)-triene-3,16 $\alpha$ -diol and 16 $\alpha$ -ethinylestra-1,3,5(10)-triene-3,16 $\beta$ -diol compounds recited in the proviso at the end of claim 53. The "18a-homo" recitation provides an additional carbon at this position. Thus, applicants withdraw their previous argument that the compounds are specifically disclosed in Examples 31 and 32 and that this supports the proviso.

However, applicants maintain their position that the proviso in instant claim 53 has adequate support in the original disclosure on the following bases.

The spirit of the holding in In re Johnson, 194 USPQ 187 (CCPA 1977), still supports applicants' position that the proviso excluding a few specific species from the claimed genus is adequately supported by the original disclosure. The basis for Johnson, which applies here, is that, since the whole scope of the original genus is clearly supported, a scope which only eliminates a small part of such scope must also be supported. As stated by the Court in Johnson:

"The notion that one who fully discloses, and teaches those skilled in the art how to make and use, a genus and numerous species therewithin, has somehow failed to disclose, and teach those skilled in the art how to make and use, that genus minus two of those species, and thus has failed to satisfy the requirement of §112, first paragraph, appears to result from a hypertechnical application of legalistic prose relating to that provision of the statute."

That two of the four species excluded by the proviso are not explicitly recited in the original disclosure should not change the reasoning behind this statement of the law by the Court. The reasoning of the Court in Johnson (highlighted copy provided herewith) makes clear that the reasoning for allowing a proviso, which was not explicitly recited in the original disclosure, was not because the excluded species were explicitly recited options. The reasoning was that applicants should have a right to retreat to a narrower invention when it turns out that the originally disclosed scope of their invention is not patentable; see In re Wertheim, 191 USPQ 90, 97 (CCPA 1976) and In re Saunders, 170 USPQ 213, 220 (CCPA 1971), both cited and quoted in Johnson.

Even the MPEP, at §2173.05(i), notes "that a lack of literal basis in the specification for a negative limitation may not be sufficient to establish a *prima facie* case for lack of descriptive support. Ex parte Parks, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993)."

Further, the current situation is not akin to the situation in Ex parte Grasselli, 231 USPQ 393 (Bd. App. 1983), *aff 'd mem.*, 738 F.2d 453 (Fed. Cir. 1984), wherein the negative limitation was found lacking support because adding the limitation introduced new concepts of the invention. Exclusion of two compounds out of the genus does not introduce new concepts of the invention, it merely carves out a very small percentage of the species of the genus, which were found later to be already known compounds. This is exactly the type of situation which was found in Johnson, Wertheim, Saunders and Parks to not give rise to a lack of adequate written description rejection under 35 U.S.C. §112, first paragraph.

Accordingly, applicants urge that the rejection under 35 U.S.C. §112, first paragraph, should be withdrawn.

### **The Rejection under 35 U.S.C. §102**

The rejection of claims 53-65 under 35 U.S.C. §102, as being anticipated by Ojasoo (CAPLUS 1979:66957) and Roussel-Uclaf (CAPLUS 1970:3637) is respectfully traversed.

The compound disclosed by Ojasoo and Roussel-Uclaf which forms the basis for the rejection is the 16 $\alpha$ -ethinylestra-1,3,5(10)-triene-3,16 $\beta$ -diol compound which is excluded from applicants' claims by the proviso at the end of claim 53. Although support in the specification for the proviso is in dispute (see traversal of 35 U.S.C. §112 rejection above), the proviso must still be given its full consideration when applying – or not applying – prior art. It is improper to ignore a claim limitation when assessing application of prior art because it is alleged to be objectionable for some other reason. Further, for the reasons given above, the proviso is properly supported and the 35 U.S.C. §112 rejection should be withdrawn.

Because the compound of the prior art is expressly excluded from applicants' claims, the prior art fails to anticipate the instant claims and the rejection under 35 U.S.C. §102 should be withdrawn.

### **The Rejection under 35 U.S.C. §103**

The rejection of claims 53-65 under 35 U.S.C. §103, as being obvious over Arunachalam (J.Bio.Chem.) is respectfully traversed.

Arunachalam discloses "Iodoestrogens" which require an iodo group-containing estrogen analog. All of the compounds disclosed by Arunachalam which are 3,16-diols require at least one iodo group substituted at the 17-position. See, Table 1 on page 5901, compounds 19a, b and c. Arunachalam discloses no compounds which are 3,16-dihydroxyestra-1,3,5(10)-trienes which are substituted at the 17 position by fluoro, an optionally partially or completely fluorinated alkyl group or hydrogen. Compare applicants'

claim 53, particularly the general formula I and the R<sup>17</sup> substituent definition.

There is no teaching or suggestion from Arunachalam (or otherwise in the art) to modify the iodo compounds of the reference to replace the iodo substituent with a fluoro, optionally fluorinated alkyl or hydrogen substituent. In order to establish obviousness under 35 U.S.C. §103, the mere fact that the prior art could be modified to arrive at the claimed invention is insufficient. The prior art must suggest to one of ordinary skill in the art the desirability of the necessary modification. See In re Laskowski, 10 USPQ2d 1397 (Fed. Cir. 1989); and, In re Geiger, 2 USPQ2d 1276 (Fed. Cir. 1987). No such desirability is evidenced on the record here.

Contrary to providing teachings indicating any desire for one of ordinary skill in the art to remove the iodo group, Arunachalam directs one of ordinary skill in the art away from making such a modification. The reference makes clear – see, e.g., the Abstract and the second and third full paragraphs of the text body on page 5900 – that the primary objective of the reference was to provide highly radioactive iodo-containing estrogen analog compounds. The basis for the work underlying the reference was to investigate specific iodination sites to determine which would not destroy the specific receptor binding of the estrogen. See the first paragraph under the "Discussion" section on page 5900. The reference even specifically focuses on isotopes of iodine and dismisses previous attempts with other radioactive substituents as inadequate. See the first paragraph under the "Discussion" section on page 5900.

Since the teachings of Arunachalam unequivocally directs one of ordinary skill in the art that the iodo substituent is necessary in their compounds, Arunachalam clearly does not motivate one of ordinary skill in the art to remove the iodo group or otherwise modify their compounds to arrive at compounds of the instant claims.


It is asserted in the Office Action that the substitution of fluoro for iodo in the reference compounds would have been obvious because fluoro and iodo are in the same group of the periodic table and the substitution would be expected to result in compounds with similar properties. This might have been a convincing argument if the reference itself did not completely contradict it. Arunachalam specifically extols the desirability of the iodo substituent above others. In fact, Arunachalam refers in general to a fluorine isotope – see the first paragraph under the "Discussion" section on page 5900 – but dismisses it in favor of iodine isotopes. Thus, the reference itself refutes the argument that substitution of a fluoro group for iodo would be expected to result in compounds with similar properties.

Part of the argument in the Office Action appears to imply that Arunachalam provides a generic disclosure of substitution which would include fluoro and iodo (i.e., it argues that the claims are of "broader scope," that a showing of "criticality and/or unexpected results" is required and the "reference is not limited to working examples.") To the extent this position was intended, applicants point out that Arunachalam does not provide a generic disclosure which would encompass fluoro substitution at the 17-position. This is not a case of a reference having a generically encompassing disclosure wherein applicants must show criticality and/or unexpected results for a selection invention.

It is submitted that the application is in condition for allowance. But the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

  
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